

BOLETUS DRYOPHILUS *sp. nov.*

Illustrations: See Microfiche No. 6

Pileus 4–10 cm latus, siccus, tomentosus vel velutinus, saepe rimosus, rufus vel rufobrunneus demum furvior vel marcidus. Contextus flavus tactu caeruleus. Sapor et odor mitis. Tubuli 1 cm longi, olivaceo-flavi tactu caerulei; pori 0.5–1 mm lati, concolores tactu caerulei. Stipes 5–8 cm longus, 1–2 cm crassus, siccus, glaber, apice flavus, rufus basim versus. Sporae 12–16.5 × 5.5–8 μm, subellipsoideae vel subfusoidae, laeves. Cystidia 25–40 × 7–12 μm, clavata. Cuticula intertexta cellulis clavatis vel vesiculososis gregatim. Holotypus (no. 18557) a H. D. Thiers lectus prope Fremont Campground, Los Padres National Forest, Santa Barbara County, January 28, 1967; in Herbarium San Francisco State University conservatus.

Pileus 4–10 cm broad when mature, convex to pulvinate when young, unchanging or becoming broadly convex to plane to highly irregular and undulating with age; surface dry to slightly moist, conspicuously tomentose when young, unchanging or appearing subglabrous with age, sometimes becoming rimose to split and often developing into large cracks or conspicuous fissures; color when young near reddish brown to red (“garnet brown” to “madder brown” to “Vandyke red” to “acajou red”), sometimes overlain by an olive brown (“tawny-olive” to pale “buckthorn brown”) tomentum, with age, in some the red color darkens to near dark red (“Hay’s maroon” to “Vandyke red” to “diamine brown”), in others the red fades and the olive brown (“tawny-olive” to “clay color”) predominates; frequently, the combination of a red background and pallid tomentum gives the pileus a pinkish-brown appearance; margin incurved, becoming decurved, entire becoming eroded. **Context** 1–2 cm thick, yellow (“pale chalcedony yellow” to “sulphur yellow”) with a slight reddening under the cuticle, slowly and erratically becoming blue when exposed. Taste slightly acid near the cuticle, otherwise mild; odor not distinctive.

Tubes up to 1 cm in length, broadly and deeply to shallowly depressed, sometimes appearing decurrent when very old, near olive yellow (“old gold” to “olive lake”), bluing when exposed; **pores** 0.5–1 mm broad, angular, uneven, concolorous with tubes, bluing when bruised.

Stipe 5–8 cm long, 1–2 cm thick at the apex, equal or enlarging slightly toward the apex, often pinched and narrowed at the base, solid; surface dry to moist, glabrous; color yellow at the apex (“barium yellow” to “citron yellow”), changing toward the base to reddish (“maroon” to “Vandyke red” to “diamine brown”), the red colors being particularly evident in old basidiocarps, darkening

when bruised. **Context** concolorous with the surface, becoming blue when exposed except at the base.

Spore print brown. **Sporae** 12–16.5 × 5.5–8 μm, subellipsoid to subfusoid, not truncate, smooth, moderately thick walled; brown in KOH, dark cinnamon brown in Melzer’s.

Basidia 20–26 × 7–9 μm, hyaline, four-spored, clavate. **Hymenial cystidia** 25–40 × 7–12 μm, scattered, inconspicuous, and sometimes apparently absent, embedded in the hymenium, hyaline, clavate.

Tube trama parallel, becoming slightly divergent with age. **Pileus trama** interwoven, homogeneous. **Pileus cuticle** differentiated as a tangled trichodermium of heavily incrustated hyphae that stain pale ochraceous in KOH, the incrustations frequently spirally arranged. **Stipe cuticle** differentiated as a layer of interwoven hyphae with numerous clusters of clavate to vesiculose cells that are hyaline or brown in KOH. **Clamp connections** absent.

Chemical reactions HNO₃—context and cuticle red; HCl—context pink.

Habit, habitat, and distribution Solitary to gregarious in humus in open oak woods. This species has been found from the San Francisco Bay area south to San Diego County. In all instances it was associated with coastal live oak. It appears to be somewhat erratic in its fruiting habits, apparently not fruiting at all or only rarely during some seasons, but noticeably abundant in others. No doubt it will eventually be found to occur throughout the range of the coastal live oak.

Material studied Los Angeles County: Thiers 32189. Monterey County: Thiers 18595. San Diego County: Thiers 25066, 25131, 25214, 25223. San Francisco County: Thiers 24529. San Mateo County: Setzer 1513; Thiers 11921, 21902, 26952, 27015. Santa Barbara County: Thiers 18557 type, 25268.

Observations This species obviously belongs in the *Subtomentosi* section and also in the subsection *Subtomentosi*. It does not, however, satisfactorily fit the description of any species known for that taxon. It is recognized by the peculiar color combination in the pileus. The reddish color sometimes almost completely dominates, but more often the cuticle is red to rose colored when young but becomes overlain and at least partially masked with olive-brown fibrils as it gets older. The stipe is also distinctive in that it is rather short, often pinched at the base, and shows very distinct red and yellow portions. The cuticle is somewhat suggestive of that of *B. chrysenteron*, but the incrustations do not stain cinnamon brown as they do in that species. The colors of the pileus and stipe differentiate it from *B. subtomentosus*, and the absence of any blue discoloration on the pileus when ammonium hydroxide is applied precludes calling it *B. spadiceus*.

So far as is known, its edibility has not been determined.